

REMARKS

This amendment is submitted in response to the Official Action mailed July 16, 2007. Claims 1-4, 7-9, and 11-19 are pending. Claims 5, 6, and 10 are cancelled. Claims 1-4, 7, 9, and 15 are amended to more particularly point out and distinctly claim the invention. In particular, claims 1-4, 7, 9, and 15 are amended to further define the polyethylene as a high density polyethylene (HDPE). Support for this amendment is found at, for example, original claim 5. Additionally, claims 1 and 15 are amended to provide the melt flow unit “g/10 min,” which is supported throughout the originally-filed application at, for example, page 4, lines 1-3. Also, claims 1 and 15 are amended to recite that the ratio of HDPE to ABS, PC, or a mixture of ABS and PC provides a blend having a modulus greater than the additive contribution of each polymer to overall stiffness. Support for this amendment is found in the originally-filed application at, for example, page 6, line 10 – page 7, line 4. No new matter is added. In view of the above claim amendments and the following remarks, reconsideration by the Examiner and allowance of the application is respectfully requested.

Turning to the Official Action, claims 1-19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office Action alleges that the phrase “melt flow” lacks units and is unclear. As noted above, claims 1 and 15 are amended to provide the melt flow unit “g/10 min.” Therefore, this rejection is respectfully traversed.

The Office Action also states that reference “BA” (CA-2,199,487) listed on Applicants’ IDS of October 24, 2005 was not submitted and was not considered. However, CA-2,199,487 was submitted with the IDS and appears in the PAIR record for this application. In PAIR, this document is described as a “Foreign Reference” having 26 pages and has a Mail Room Date of October 24, 2005. The application serial number 2,199,487 appears on every page of the document in the PAIR record. Therefore, Applicants request consideration of this reference by the Examiner.

Claims 1, 4-12, 15, and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,989,683 to Haddock. Additionally, claim 16 is rejected under 35 U.S.C. § 103(a) as obvious over

Haddock. Haddock is cited as teaching ABS/PC blends. However, Haddock does not disclose or suggest the inclusion of high density polyethylene (HDPE) in an immiscible polymer blend with ABS, PC, or ABS/PC, as recited in independent claims 1 and 15 of the present application. As set forth in the accompanying Rule 132 Declaration of Thomas J. Nosker, Ph.D. ("Nosker Declaration"), the immiscible polymer blends of the present invention, all of which include HDPE, possess an unexpectedly high modulus compared to the expected modulus based upon the additive contributions of each polymer (e.g. HDPE and ABS, HDPE and PC, or HDPE and ABS/PC) to overall stiffness. Therefore, this rejection is respectfully traversed.

Claims 1 and 4-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Publication No. 20020017743 to Priedeman, Jr. Priedeman, Jr. is cited as disclosing ABS/PC blends. However, Priedeman, Jr. does not disclose or suggest the inclusion of HDPE in an immiscible polymer blend with ABS, PC, or ABS/PC, as recited in independent claims 1 and 15 of the present application. Furthermore, as mentioned above, the immiscible polymer blends of the present invention possess unexpected properties. Therefore, this rejection is respectfully traversed.

Claims 1, 3, 8, 9, 11, 12, 15, 17, and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over International Publication No. WO96/07703 to Farrah. Farrah is cited as disclosing "a composition which may contain ethylene polymers having a melt flow of 0.01g/10 min which is combined with polycarbonate having a melt flow rate of 3-150." (Office Action, page 5). However, the substantially linear ethylene polymers recited in Farrah are not HDPE. As recited at page 3, lines 31-32 of the present application, HDPE has a density greater than 0.940 g/cc. In contrast, the upper limit of the density of the ethylene polymers of Farrah is 0.935 g/cc. Therefore, this rejection is respectfully traversed.

Claims 1-19 are rejected under 35 U.S.C. § 103(a) as obvious over Farrah in view over U.S. Patent No. 5,937,521 to March or U.S. Patent No. 6,001,491 to Bayer. March and Bayer are cited as disclosing thermoplastic marine pilings and railroad ties. However, neither March nor Bayer discloses or suggests immiscible polymer blends of HDPE and ABS, HDPE

and PC, or HDPE and ABS/PC. Therefore, neither March nor Bayer remedies the defects of Farrah.

Claims 1-19 are rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,334,647 to Sperk in view of March or Bayer. However, Sperk does not disclose or suggest an immiscible polymer blend, which includes HDPE and ABS, PC, or a mixture of ABS and PC, wherein the HDPE has a melt flow at 190°C/2.16Kg of less than about 1g/10min, and the PC, ABS or mixture of PC and ABS has a melt flow at 190°C/2.16Kg greater than about 1g/10min and wherein the ratio of HDPE to ABS, PC, or a mixture of ABS and PC provides a blend having a modulus greater than the additive contribution of each polymer to overall stiffness, as presently claimed.

At Column 2, lines 46-66, Sperk generally discloses blending or compounding at least two immiscible thermoplastic polymers. Sperk further provides a long list of useful thermoplastic polymers beginning at Column 5, line 4 and ending at Column 12, line 51. HDPE appears once in Sperk at Column 12, lines 21-22 and is never recited in combination with ABS, PC or ABS/PC.

Additionally, as explained in Paragraphs 12 and 13 of the accompanying Nosker Declaration, the immiscible polymer blends of the present invention (e.g. HDPE and ABS, HDPE and PC, or HDPE and ABS/PC) possess an unexpectedly high modulus compared to the expected modulus based upon the additive contributions of each polymer to overall stiffness. Therefore, this rejection is respectfully traversed.

Applicant: T. Nosker
Application No. 09/720,136

Docket No. 70439.00026 (P34,035 USA)

CONCLUSION

In view of the above claim amendments and the foregoing remarks, this application is believed to be in condition for allowance. Reconsideration is respectfully requested. However, the Examiner is requested to telephone the undersigned if there are any remaining issues in this application to be resolved.

Finally, if there are any additional charges in connection with this response, the Examiner is authorized to charge Applicant's deposit account number 50-1943 therefor.

Respectfully submitted,

/Sarah Klosek/

Sarah Klosek
Reg. No. 55,332

Fox Rothschild LLP
P.O. Box 5231
Princeton, NJ 08543-5231
Tele: (609) 844-3024
Fax: (609) 896-1469